

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : _____							

Work Order ID 161583

Thursday, May 25, 2017 3:16:16 PM

161583

Page 2

Item ID: D2892-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Support
Start Date: 6/29/2017 Start Qty: 16.00 ***16*** Cust Item ID:
Required Date: 7/14/2017 Req'd Qty: 16.00 ***16*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
HandFXtube	Memo	0.32							
Hand Finishing Crosstubes	Per note 8 on page 1 of dwg D2892, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24h of cure time								
140	QC3- Inspect Part Finish	0.00							
140									
QC	Memo	0.16							
Quality Control									
170	Identify as per dwg & Stock Location: _____	0.00							
170									
Packaging	Memo	0.16							
Packaging	LOCATION : LG050								

16 17-07-06 41 9-89

DT

16 38 9-89 JUL 07 2017

16 6 9-89 JUL 10 2017

DQA: _____ Date: _____

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WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
 Scrap ☐
 Use-as-is ☐
 Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	

Date: _____

Step #: _____

QTY Effective: _____

Description Work Order Deviation

Disposition

MRB (QSI042) Approval

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Root Cause

FAULT CATEGORY

Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐				

OTHER: _____

Work Order ID 161583

Thursday, May 25, 2017 3:16:16 PM

161583

Page 3

Item ID: D2892-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Support

Stop ***NS2***

Start Date: 6/29/2017 Start Qty: 16.00

16

Cust Item ID:

Required Date: 7/14/2017 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

1.60

Quality Control

JUL 10 2017

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
 Scrap ☐
 Use-as-is ☐
 Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐
 Machining ☐
 Thermoforming ☐
 Large Fab ☐
 Cross tube ☐
 Small Fab ☐
 Finishing ☐
 Composite ☐
 Water Jet ☐
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 Rec/Store/Packaging ☐
 Supplier ☐
 Engineering ☐
 Quality ☐
 Other ☐

Date: _____

Step #: _____

QTY Effective: _____

Description Work Order Deviation

Disposition

MRB (QSI042) Approval

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Root Cause

Environment ☐
 Design ☐
 Doc/Data ☐
 Equip/Tooling ☐
 Handling/Pre ☐
 Material ☐
 Internal Transport ☐
 Tribal Knowledge ☐
 LOA ☐
 Substation ☐
 Past Expiry Date ☐
 Misidentified ☐
 No Re-verification ☐
 Operator ☐
 Offset/Setup ☐
 Supplier ☐
 Training ☐
 Use for Testing ☐
 Poor Information ☐
 Rushing ☐
 Product Improvement ☐
 Process Improvement ☐
 Manufacturing Process ☐
 Past Due ☐

Pressure/Forced ☐
 Bending ☐
 Centre Not Concentric ☐
 Cracks ☐
 Crimp/Kink/Ripple/Wave ☐
 Cuffs ☐
 Crushing ☐
 Heat Treat ☐
 Wave/Twist in Tube ☐
 Marks/Chatter ☐

FAULT CATEGORY

Temperature/Cure ☐
 Set-up ☐
 BOM/Route ☐
 Broken/Damage/Defect ☐
 Inspection Incomplete/Unqualified ☐
 Contamination ☐
 Countersink ☐
 Cut Too Short ☐
 Instructions Incomplete/Unclear ☐
 Drill Holes ☐
 Power Loss/Surge ☐
 Folio/Program ☐
 Grain ☐
 Weld ☐
 Wrong Stock Pulled ☐
 Out of Sequence ☐
 Off-set ☐
 Misabeled ☐
 Fit/Function ☐
 Misaligned/off center ☐
 Positioned Wrong ☐
 Outside Dimensions ☐
 Over/Under tolerance ☐
 Part Incorrect ☐
 Part Lost/Missing ☐
 Part Moved ☐
 Drawing ☐
 Finish ☐
 Misread ☐
 Turning Sequence ☐

OTHER: _____

Picklist Print

Thursday, May 25, 2017 3:16:19 PM

Page 1

Work Order ID: 161583

161583

Parent Item: D2892-1

D2892-1

Parent Item Name: Support

Start Date: 6/29/2017

Required Date: 7/14/2017

Start Qty: 16.00

Required Qty: 16.00

Comments:

IPP C02.11.26Added P/O KJ

IPP D 08.03.19 Re-format EC verified by: DD

IPP Rev:E

11.08.04 as per dwg rev.B DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK077		Manufactured	No			110	Each	16.0000	0.5	8			

DSK077

D2892-1 Turning Detail

Location

Loc Qty

Loc Code

MAT060

16

160605

10

161600

6

8

17-06-12

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
☐ OTHER : _____					

DART AEROSPACE LTD		Work Order:	161583
Description: Ø2.500 Support		Part Number:	D2892-1
Inspection Dwg: D2892	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.115	0.150		.133	.133	.132	.133	.133
AB	0.290	0.310		.302	.300	.300	.300	.306
AC	0.040	0.060		.046	.047	.049	.050	.050
AD	0.115	0.150		.126	.125	.125	.125	.125
AE	0.240	0.260		.250	.250	.250	.250	.250
AF	0.188	0.193		.189	.189	.189	.189	.189
AG	0.240	0.260		.250	.250	.250	.250	.250
AH	1.116	1.156		1.141	1.140	1.137	1.134	1.137
AI	0.454	0.474		.464	.463	.464	.462	.462
AJ	0.240	0.260		.250	.250	.250	.250	.250
AK	0.053	0.073		.060	.060	.060	.060	.060
AL	0.257	0.262		.260	.260	.260	.260	.260
AM	1.663	1.683		1.676	1.676	1.675	1.674	1.675
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.022	0.042		.032	.032	.032	.032	.032
AP	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AQ								
AR								
AS								
AT								
Accept/Reject								

Measured by:		Date:	17-06-12
Audited by:	DAS 14 9-89	Date:	17/06/2012
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.01.31	Dwg Rev updated	KJ	
D	13.05.22	Dimensions updated	KJ	 

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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DART AEROSPACE LTD		Work Order:	161583
Description: Ø2.500 Support		Part Number:	D2892-1
Inspection Dwg: D2892	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6	7	8	9	10
HAAS Section								
AA	0.115	0.150		.133	.133	.134	.133	.134
AB	0.290	0.310		.300	.300	.300	.300	.300
AC	0.040	0.060		.125	.125	.125	.125	.125
AD	0.115	0.150		.125	.125	.125	.125	.125
AE	0.240	0.260		.250	.250	.250	.250	.250
AF	0.188	0.193		.189	.189	.189	.189	.189
AG	0.240	0.260		.250	.250	.250	.250	.250
AH	1.116	1.156		1.137	1.134	1.137	1.132	1.138
AI	0.454	0.474		.465	.462	.462	.459	.458
AJ	0.240	0.260		.250	.250	.250	.250	.250
AK	0.053	0.073		.06	.06	.06	.06	.06
AL	0.257	0.262		.260	.260	.260	.260	.260
AM	1.663	1.683		1.674	1.675	1.675	1.675	1.675
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.022	0.042		.032	.032	.032	.032	.032
AP	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AQ								
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>[Signature]</i>	Date:	17-06-12
Audited by:	DAS 14 9-89	Date:	17/06/20
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.01.31	Dwg Rev updated	KJ	
D	13.05.22	Dimensions updated	KJ	<i>[Signature]</i>

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐
Machining ☐
Thermoforming ☐
Large Fab ☐
Cross tube ☐
Small Fab ☐
Finishing ☐
Composite ☐
Water Jet ☐
Prod. Eng. Coord. ☐
Rec/Store/Packaging ☐
Supplier ☐
Engineering ☐
Quality ☐
Other ☐

Date: _____

Step #: _____

QTY Effective: _____

Description Work Order Deviation

Disposition

MRB (QSI042) Approval

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Root Cause

Environment ☐
Design ☐
Doc/Data ☐
Equip/Tooling ☐
Handling/Pre ☐
Material ☐
Internal Transport ☐
Tribal Knowledge ☐
LOA ☐
Substation ☐
Past Expiry Date ☐
Misidentified ☐
No Re-verification ☐
Operator ☐
Offset/Setup ☐
Supplier ☐
Training ☐
Use for Testing ☐
Poor Information ☐
Rushing ☐
Product Improvement ☐
Process Improvement ☐
Manufacturing Process ☐
Past Due ☐

Pressure/Forced ☐
Bending ☐
Centre Not Concentric ☐
Cracks ☐
Crimp/Kink/Ripple/Wave ☐
Cuffs ☐
Crushing ☐
Heat Treat ☐
Wave/Twist in Tube ☐
Marks/Chatter ☐

FAULT CATEGORY

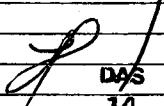
Temperature/Cure ☐
Set-up ☐
BOM/Route ☐
Broken/Damage/Defect ☐
Inspection Incomplete/Unqualified ☐
Contamination ☐
Countersink ☐
Cut Too Short ☐
Instructions Incomplete/Unclear ☐
Drill Holes ☐
Power Loss/Surge ☐
Folio/Program ☐
Grain ☐
Weld ☐
Wrong Stock Pulled ☐
Out of Sequence ☐
Off-set ☐
Mislabeled ☐
Fit/Function ☐
Misaligned/off center ☐
Positioned Wrong ☐
Outside Dimensions ☐
Over/Under tolerance ☐
Part Incorrect ☐
Part Lost/Missing ☐
Part Moved ☐
Drawing ☐
Finish ☐
Misread ☐
Turning Sequence ☐

OTHER: _____

DART AEROSPACE LTD		Work Order: 161583
Description: Ø2.500 Support		Part Number: D2892-1
Inspection Dwg: D2892	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.115	0.150		.133	.134	.135	.133	.135
AB	0.290	0.310		.300	.300	.300	.300	.300
AC	0.040	0.060		.050	.047	.051	.052	.050
AD	0.115	0.150		.125	.125	.125	.125	.125
AE	0.240	0.260		.250	.250	.250	.250	.250
AF	0.188	0.193		.189	.189	.189	.189	.189
AG	0.240	0.260		.250	.250	.250	.250	.250
AH	1.116	1.156		1.130	1.131	1.129	1.129	1.144
AI	0.454	0.474		.465	.465	.465	.465	.462
AJ	0.240	0.260		.250	.250	.250	.250	.250
AK	0.053	0.073		.06	.06	.06	.06	.06
AL	0.257	0.262		.260	.260	.260	.260	.260
AM	1.663	1.683		1.677	1.676	1.676	1.675	1.674
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.022	0.042		.032	.032	.032	.032	.032
AP	2.779	2.789		2.784	2.784	2.784	2.784	2.784
AQ								
AR								
AS								
AT								
Accept/Reject								

Measured by:	 DAS 20 17-06-13 9-89	Date: 17-06-12
Audited by:	14 9-89	Date: 17/06/20
Preliminary Approval:		Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.01.31	Dwg Rev updated	KJ	
D	13.05.22	Dimensions updated	KJ	 

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DART AEROSPACE LTD		Work Order:	161583
Description: Ø2.500 Support		Part Number:	D2892-1
Inspection Dwg: D2892	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	164	2	3	4	5
HAAS Section								
AA	0.115	0.150		.135				
AB	0.290	0.310		.300				
AC	0.040	0.060		.051				
AD	0.115	0.150		.125				
AE	0.240	0.260		.250				
AF	0.188	0.193		.189				
AG	0.240	0.260		.250				
AH	1.116	1.156		1.144				
AI	0.454	0.474		.462				
AJ	0.240	0.260		.250				
AK	0.053	0.073		.063				
AL	0.257	0.262		.259				
AM	1.663	1.683		1.679				
AN	0.053	0.073		.063				
AO	0.022	0.042		.032				
AP	2.779	2.789		2.784				
AQ								
AR								
AS								
AT								
Accept/Reject								

Measured by:	DAS 20 9-89	Date:	17-06-13
Audited by:	DAS 14 9-89	Date:	17/06/20
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.01.31	Dwg Rev updated	KJ	
D	13.05.22	Dimensions updated	KJ	

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART
AEROSPACE

Work Order update only ☐

Work Order: _____
Part No. _____
NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐
Machining ☐
Thermoforming ☐
Large Fab ☐
Cross tube ☐
Small Fab ☐
Finishing ☐
Composite ☐
Water Jet ☐
Prod. Eng. Coord. ☐
Rec/Store/Packaging ☐
Supplier ☐
Engineering ☐
Quality ☐
Other ☐

Date: _____

Step #: _____

QTY Effective: _____

Description Work Order Deviation

Disposition

MRB (QSI042) Approval

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Root Cause

Environment ☐
Design ☐
Doc/Data ☐
Equip/Tooling ☐
Handling/Pre ☐
Material ☐
Internal Transport ☐
Tribal Knowledge ☐
LOA ☐
Substation ☐
Past Expiry Date ☐
Misidentified ☐
No Re-verification ☐
Operator ☐
Offset/Setup ☐
Supplier ☐
Training ☐
Use for Testing ☐
Poor Information ☐
Rushing ☐
Product Improvement ☐
Process Improvement ☐
Manufacturing Process ☐
Past Due ☐

Pressure/Forced ☐
Bending ☐
Centre Not Concentric ☐
Cracks ☐
Crimp/Kink/Ripple/Wave ☐
Cuffs ☐
Crushing ☐
Heat Treat ☐
Wave/Twist in Tube ☐
Marks/Chatter ☐

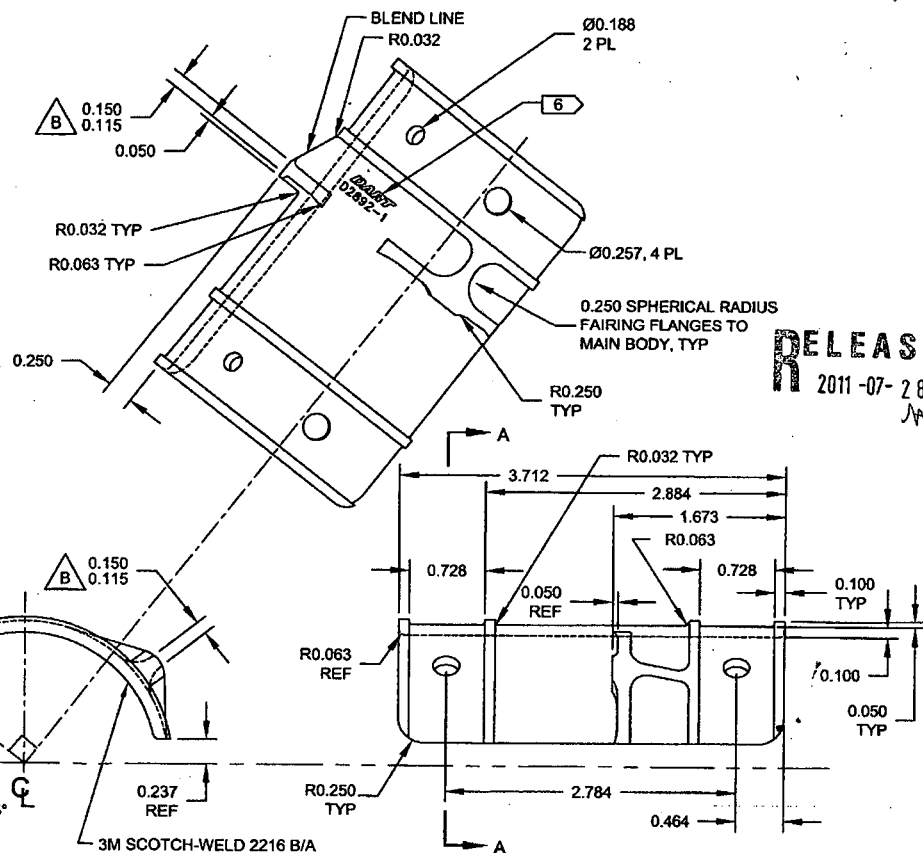
FAULT CATEGORY

Temperature/Cure ☐
Set-up ☐
BOM/Route ☐
Broken/Damage/Defect ☐
Inspection Incomplete/Unqualified ☐
Contamination ☐
Countersink ☐
Cut Too Short ☐
Instructions Incomplete/Unclear ☐
Drill Holes ☐
Power Loss/Surge ☐
Folio/Program ☐
Grain ☐
Weld ☐
Wrong Stock Pulled ☐
Out of Sequence ☐
Off-set ☐
Misabeled ☐
Fit/Function ☐
Misaligned/off center ☐
Positioned Wrong ☐
Outside Dimensions ☐
Over/Under tolerance ☐
Part Incorrect ☐
Part Lost/Missing ☐
Part Moved ☐
Drawing ☐
Finish ☐
Misread ☐
Turning Sequence ☐

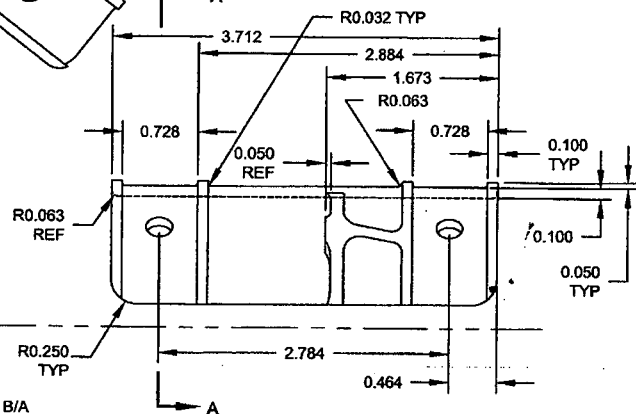
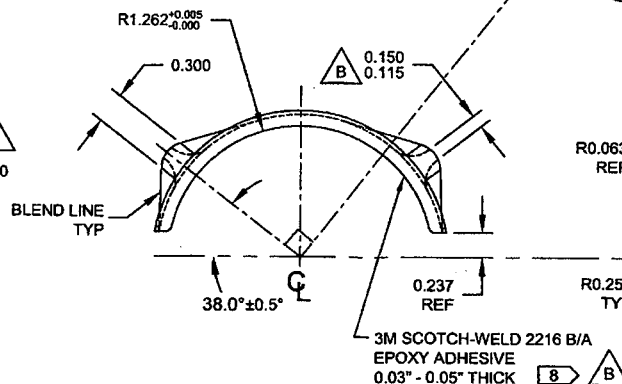
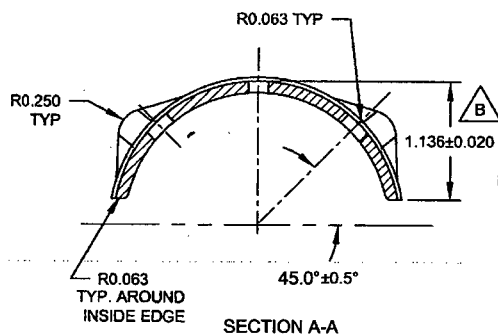
OTHER: _____

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 (REF. X.XXX = ± 0.010) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING
0.010-0.020 DEEP, PER DART QSI 044 6.3.
- 7) WEIGHT: 0.41 lb
- 8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.



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2011-07-28



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WORK ORDER

D2892-1 SUPPORT

B	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION, UPDATE TOLERANCE (ZN D5-1, B5-1, B6-1)		CP	11.07.15
A	NEW ISSUE		CP	00.11.17
REV.	DESCRIPTION		BY	DATE
DESIGN	Q	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	Q			
CHECKED	A.S.			
MFG. APPR.				
APPROVED				
DE APPR.		DRAWING NO.	REV. B	
		D2892	SHEET 1 OF 1	
		TITLE	SCALE	
		Ø2.500 SUPPORT	NTS	
DATE	11.07.15			
COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.				

161583 MCF 1705-26

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

Date: _____ Step #: _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐
Machining ☐
Thermoforming ☐
Large Fab ☐

Cross tube ☐
Small Fab ☐
Finishing ☐
Composite ☐

Water Jet ☐
Prod. Eng. Coord. ☐
Rec/Store/Packaging ☐
Supplier ☐

Engineering ☐
Quality ☐
Other ☐

Description Work Order Deviation

QTY Effective: _____

Disposition

MRB (QSI042) Approval

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Root Cause

Environment ☐
Design ☐
Doc/Data ☐
Equip/Tooling ☐
Handling/Pre ☐
Material ☐
Internal Transport ☐
Tribal Knowledge ☐
LOA ☐
Substation ☐
Past Expiry Date ☐
Misidentified ☐
No Re-verification ☐
Operator ☐
Offset/Setup ☐
Supplier ☐
Training ☐
Use for Testing ☐
Poor Information ☐
Rushing ☐
Product Improvement ☐
Process Improvement ☐
Manufacturing Process ☐
Past Due ☐

Pressure/Forced ☐
Bending ☐
Centre Not Concentric ☐
Cracks ☐
Crimp/Kink/Ripple/Wave ☐
Cuffs ☐
Crushing ☐
Heat Treat ☐
Wave/Twist in Tube ☐
Marks/Chatter ☐

FAULT CATEGORY

Temperature/Cure ☐
Set-up ☐
BOM/Route ☐
Broken/Damage/Defect ☐
Inspection Incomplete/Unqualified ☐
Contamination ☐
Countersink ☐
Cut Too Short ☐
Instructions Incomplete/Unclear ☐
Drill Holes ☐

Power Loss/Surge ☐
Folio/Program ☐
Grain ☐
Weld ☐
Wrong Stock Pulled ☐
Out of Sequence ☐
Off-set ☐
Misabeled ☐
Fit/Function ☐
Misaligned/off center ☐

Positioned Wrong ☐
Outside Dimensions ☐
Over/Under tolerance ☐
Part Incorrect ☐
Part Lost/Missing ☐
Part Moved ☐
Drawing ☐
Finish ☐
Misread ☐
Turning Sequence ☐

OTHER: _____